## SCIENCE

## FRIDAY, MARCH 28, 1913

CONTENTS	
Galileo, the Physicist: Trofessor Henry Crew	463
Facts and Fiction about Crops: Professor Cyrll G. Hopkins	470
The American Philosophical Society and President Wilson	476
Scientific Notes and News	477
University and Educational News	483
Discussion and Correspondence:—  A Simple Formula for Computing Gyroscopic Forces in an Aeroplane: Professor Edward V. Huntington. Fur-bearing Mammals, an Unappreciated Natural Resource: Walter P. Taylor. The Writings of William G. Sumner: Albert G. Keller. Lest We Forget: Professor A. H. Patterson. To Whom is the Academic Costume Worth While? T.	484
Scientific Books:—  Walcott on Cambrian Brachiopoda: Dr. JOHN M. CLARKE. Stiles's Nutritional Physiology: Professor W. H. Jordan. Bragg's Studies in Radioactivity: Pro- FESSOR R. A. MILLIKAN	488
Botanical Notes:—	
Polystictus Versicolor as a Food Plant; An Every-day Botanical Manual; The Evolu- tion of Plants. Professor Charles E. Bessey	492
Special Articles:—	
Supplementary Note on the Significance of Variety Tests: Dr. J. Arthur Harris. On the Metamorphosis of an Amæba into Flagellates and Vice Versa: Professor Wm. B. Wherry	493
The Illinois State Academy of Science: Pro- FESSOR OTIS W. CALDWELL	496
Societies and Academies:—  The Helminthological Society of Washing-	

MSS. intended for publication and books, etc., intended for review should be sent to Professor J. McKeen Cattell, Garrisonon-Hudson, N. Y.

cal Society of Washington: WM. H. BAB-

. 498

## GALILEO, THE PHYSICIST 1

THE mission of an academy of science is a function of the age in which it flourishes. The ancient academies accomplished a work now performed by the universities. The Italian academies of the Renaissance, variously estimated at from 500 to 700 in number, represent different purposes almost as numerous as the institutions themselves. But in general they were literary and scientific clans; they belonged to a period when learning was the possession of the few, to a period when one might still take all science for his domain.

The modern academy is, as a rule, closely allied with the sovereign power of some state, whose interests are promoted by it, consciously and unconsciously, in a variety of ways. The service which it renders is sometimes political, sometimes literary, sometimes scientific, sometimes social. But, so far as I can see, they all have, in common, these two ends, namely, the encouragement of the individual and service to the community.

The triple purpose of the Illinois State Academy of Science is clearly stated in the second article of its constitution as being "the promotion of scientific research, the diffusion of scientific knowledge and of the scientific spirit, and the unification of the scientific interests of the state"; just how this object can best be secured is the interesting subject of an after-dinner discussion this evening.

I leave this problem, therefore, with the

<sup>&</sup>lt;sup>1</sup>Presidential address, delivered before the Illinois Academy of Science, at Peoria, February 21, 1913.